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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,940	04/28/2005	Susumu Arai	0038-0455PUS1	2200

2292 7590 03/26/2007  
BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
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SAVAGE, JASON L

ART UNIT	PAPER NUMBER
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1775

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
31 DAYS	03/26/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 31 DAYS from 03/26/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

**Office Action Summary**

Application No.

10/532,940

Applicant(s)

ARAI ET AL.

Examiner

Jason L. Savage

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-17 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____                                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____   | 6) <input type="checkbox"/> Other: ____                           |

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Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-10, drawn to an article.

Group II, claim(s) 11, drawn to an article.

Group III, claim(s) 12, drawn to an article.

Group IV, claim(s) 13-16, drawn to a method

Group V claim(s) 17, drawn to a composition.

The inventions listed as Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The article of Group I and Group II lack the same corresponding technical features in that the article of Group I is drawn to a plating structure comprising a plating film containing fine fibers; however the article of Group II is drawn to a multilayer body containing some plated layers containing fine fibers and other plated layers being plated with a different metal.

The article of Group I and Group III lack the same corresponding technical features in that the article of Group I is drawn to a plating structure comprising a plating film containing fine fibers; however the article of Group III is drawn to a heat radiator

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comprising a plurality of plated layers containing fine fibers and other plated layers being plated with a different metal wherein the two types of plated layers are alternately layered and the edges of the plated layers plated with the different metal are removed by etching.

The article of Group I and Group IV lack the same corresponding technical features in that the article of Group I is drawn to a plating structure comprising a plating film containing fine fibers whereas the method of Group IV is drawn to a method of forming a plating structure by adding a dispersing agent and fine carbon fibers into a plating solution. The article of Group I lack the special technical feature of Group IV in that a dispersing agent is added to the plating solution in addition to fine carbon fibers. As such, the article of Group I can be formed by a materially different process such as using a plating solution which does not use a dispersing agent.

The article of Group I and composition of Group V lack the same corresponding technical features in that the article of Group I is drawn to a plating structure comprising a plating film containing fine fibers whereas the composition of Group V is drawn to a plating composition containing a dispersing agent of a polycarboxylic acid. The article of Group I lack the special technical feature of Group V in that a dispersing agent is added to the plating solution. Group I also differs from Group V in that carbon fibers are positively recited whereas the composition of Group V merely states that the polycarboxylic dispersing agent is contained.

The article of Group II and Group III lack the same corresponding technical features in that the article of Group II is drawn to a multilayer body containing some

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plated layers containing fine fibers and other plated layers being plated with a different metal whereas the article of Group III is drawn to a heat radiator comprising a plurality of plated layers containing fine fibers and other plated layers being plated with a different metal wherein the two types of plated layers are alternately layered and the edges of the plated layers plated with the different metal are removed by etching.

The article of Group II and method of Group IV lack the same corresponding technical features in that the article of Group II is drawn to a multilayer body containing some plated layers containing fine fibers and other plated layers being plated with a different metal whereas the method of Group IV is drawn to a method of forming a plating structure by adding a dispersing agent and fine carbon fibers into a plating solution. The method of Group IV lacks the special technical feature of plating other layers of a different metal.

The article of Group II and composition of Group V lack the same corresponding technical features in that the article of Group II is drawn to a multilayer body containing some plated layers containing fine fibers and other plated layers being plated with a different metal whereas the composition of Group V is drawn to a plating composition containing a dispersing agent that is a polycarboxylic acid. The composition of Group V lack the special technical feature of Group II the composition of Group V does not include a plating solution of a different metal for forming the multilayer body of Group II.

The article of Group III and method of Group IV lack the same corresponding technical features in that the article of Group III is drawn to a heat radiator comprising a plurality of plated layers containing fine fibers and other plated layers being plated with

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a different metal wherein the two types of plated layers are alternately layered and the edges of the plated layers plated with the different metal are removed by etching; whereas the method of Group IV is drawn to a method of forming a plating structure by adding a dispersing agent and fine carbon fibers into a plating solution. The method of Group IV lacks the special technical feature of plating other layers of a different metal or the subsequent processing steps to form the claimed heat radiator structure.

The article of Group III and composition of Group V lack the same corresponding technical features in that the article of Group III is drawn to a heat radiator comprising a plurality of plated layers containing fine fibers and other plated layers being plated with a different metal wherein the two types of plated layers are alternately layered and the edges of the plated layers plated with the different metal are removed by etching; whereas the composition of Group V is drawn to a plating composition containing a dispersing agent that is a polycarboxylic acid. The composition of Group V lacks the special technical feature of plating layers of a different metal composition or the subsequent processing steps to form the claimed heat radiator structure.

The method of Group IV and composition of Group V lack the same corresponding technical features in that the method of Group IV is plates a plating solution comprising a dispersing agent and fine carbon fibers whereas the composition of Group V is drawn to a plating composition containing a dispersing agent that is a polycarboxylic acid. The composition of Group V lacks the special technical feature that the plating composition include fine carbon fibers such as is recited in the method of Group IV.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

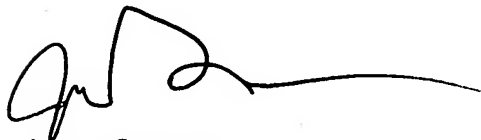
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason L. Savage whose telephone number is 571-272-1542. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jason Savage  
3-16-07



JOHN J. ZIMMERMAN  
PRIMARY EXAMINER